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# MATING SCHEME FOR PRODUCTION OF H<sub>b</sub>A REPLACEMENT MICE

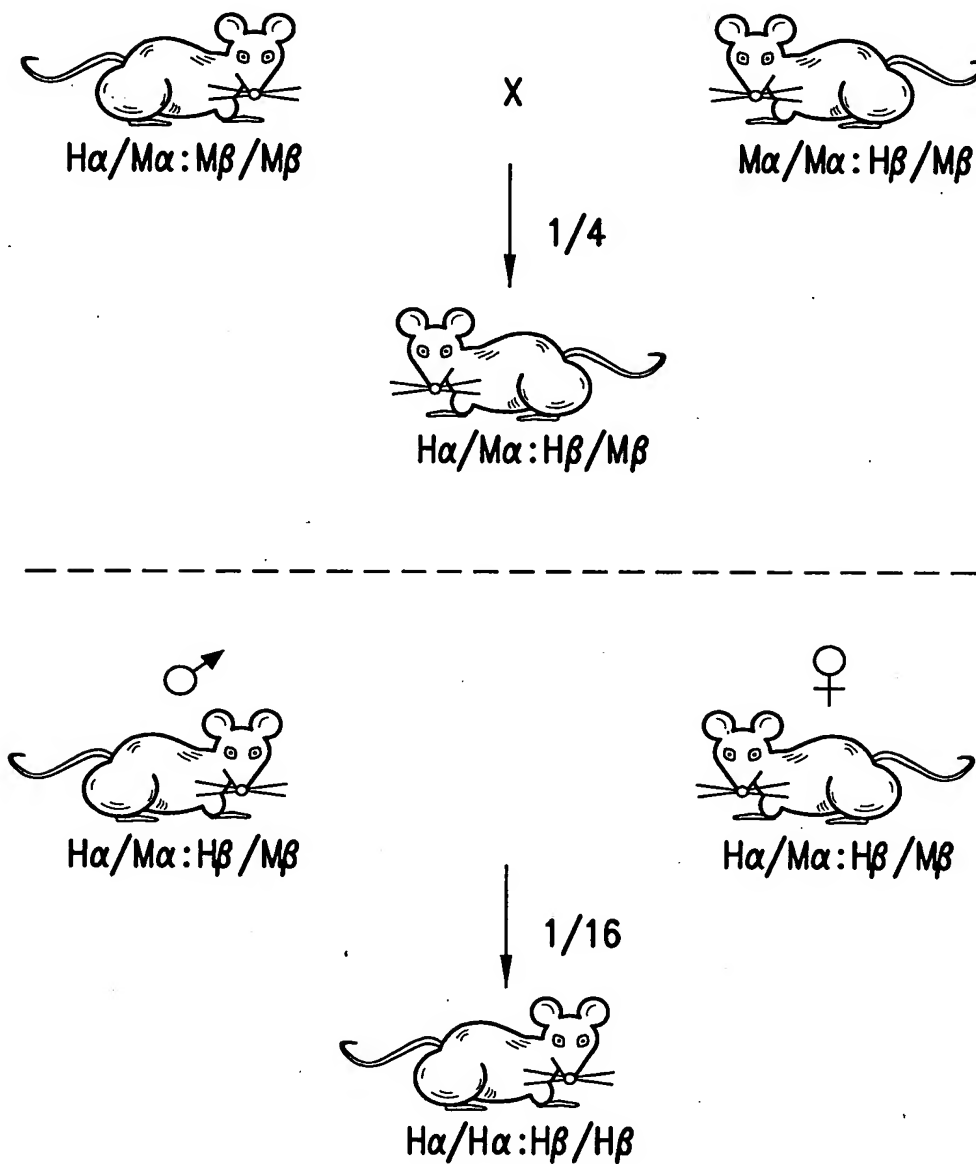


FIG. 1

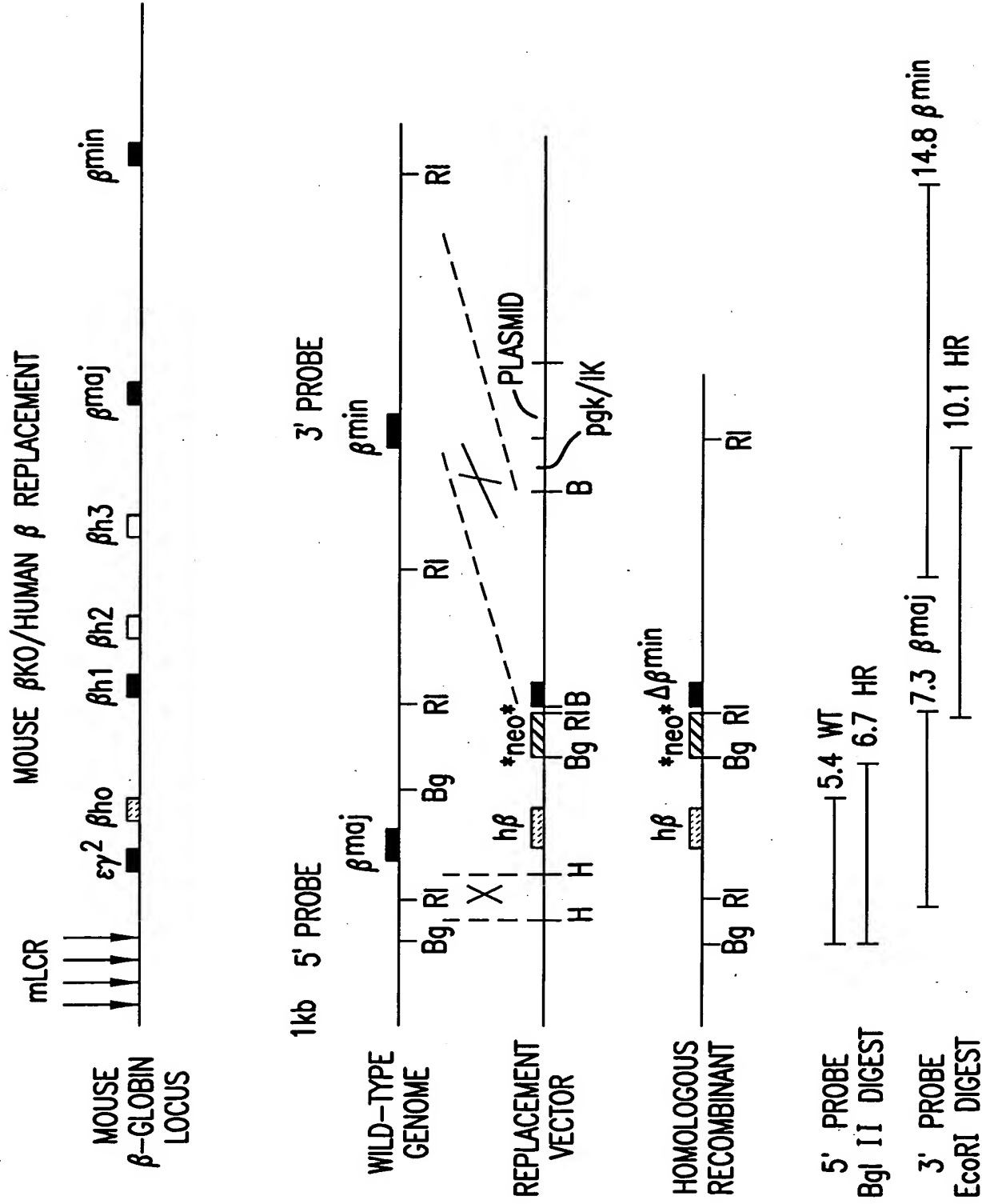
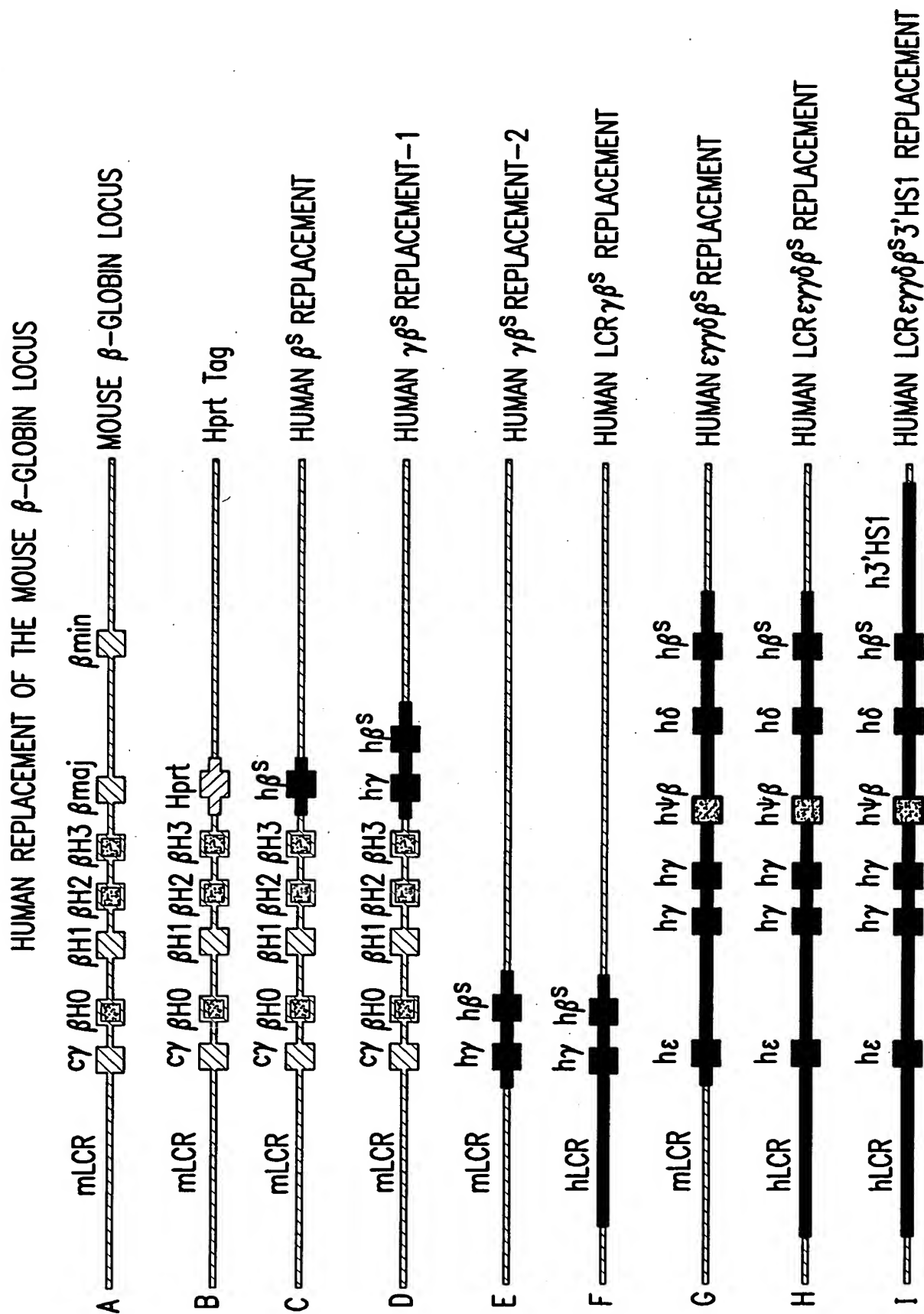


FIG.2



# FIG. 3

# HUMAN REPLACEMENT OF THE MOUSE $\alpha$ -GLOBIN LOCUS

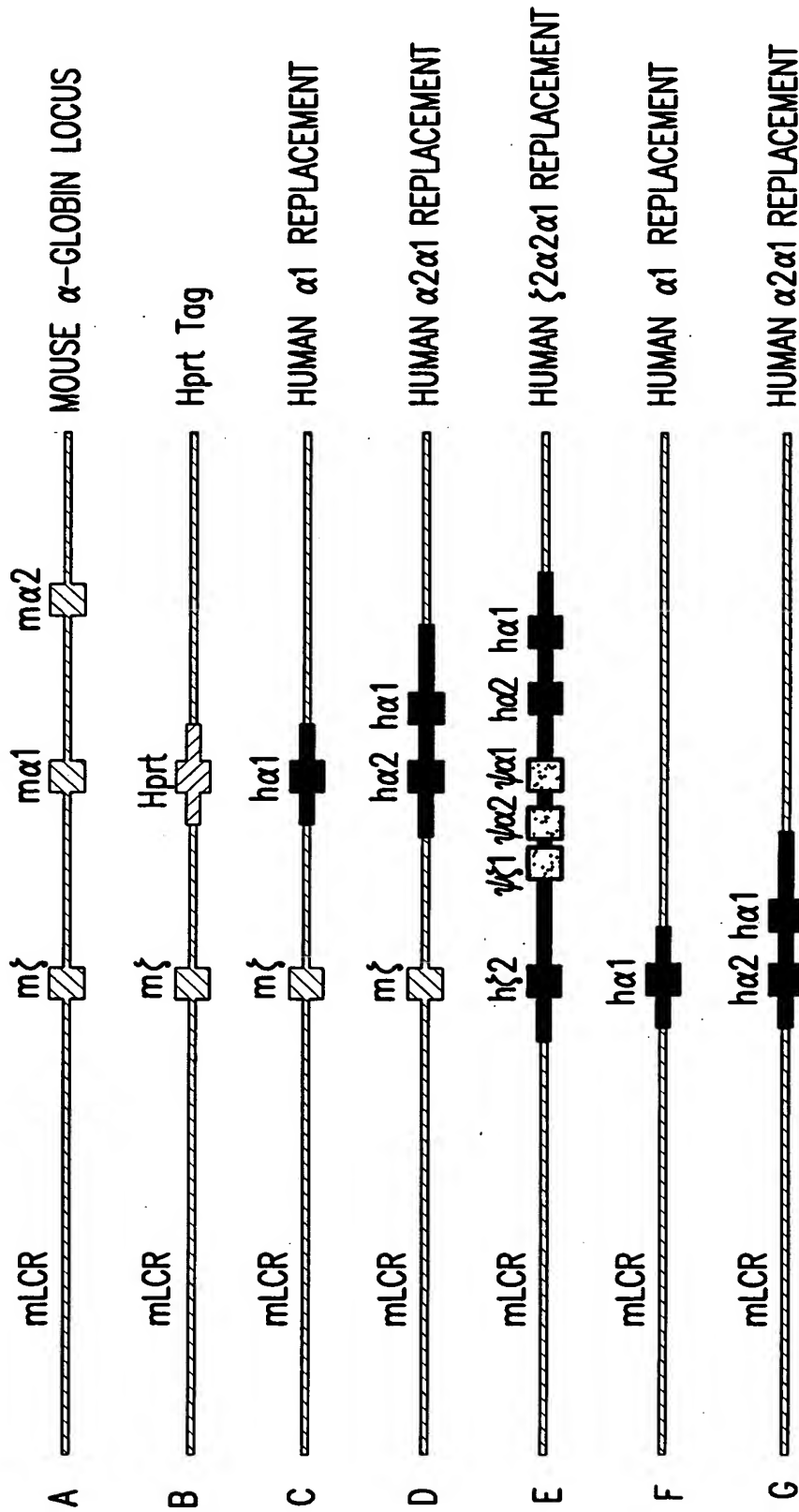


FIG.4

PRODUCTION OF TRANSGENIC HbF  $\rightarrow$  HbA MICE  
 (DOUBLY HOMOZYGOUS FOR MOUSE  $\alpha$ -GLOBIN AND  $\beta$ -GLOBIN DELETIONS)

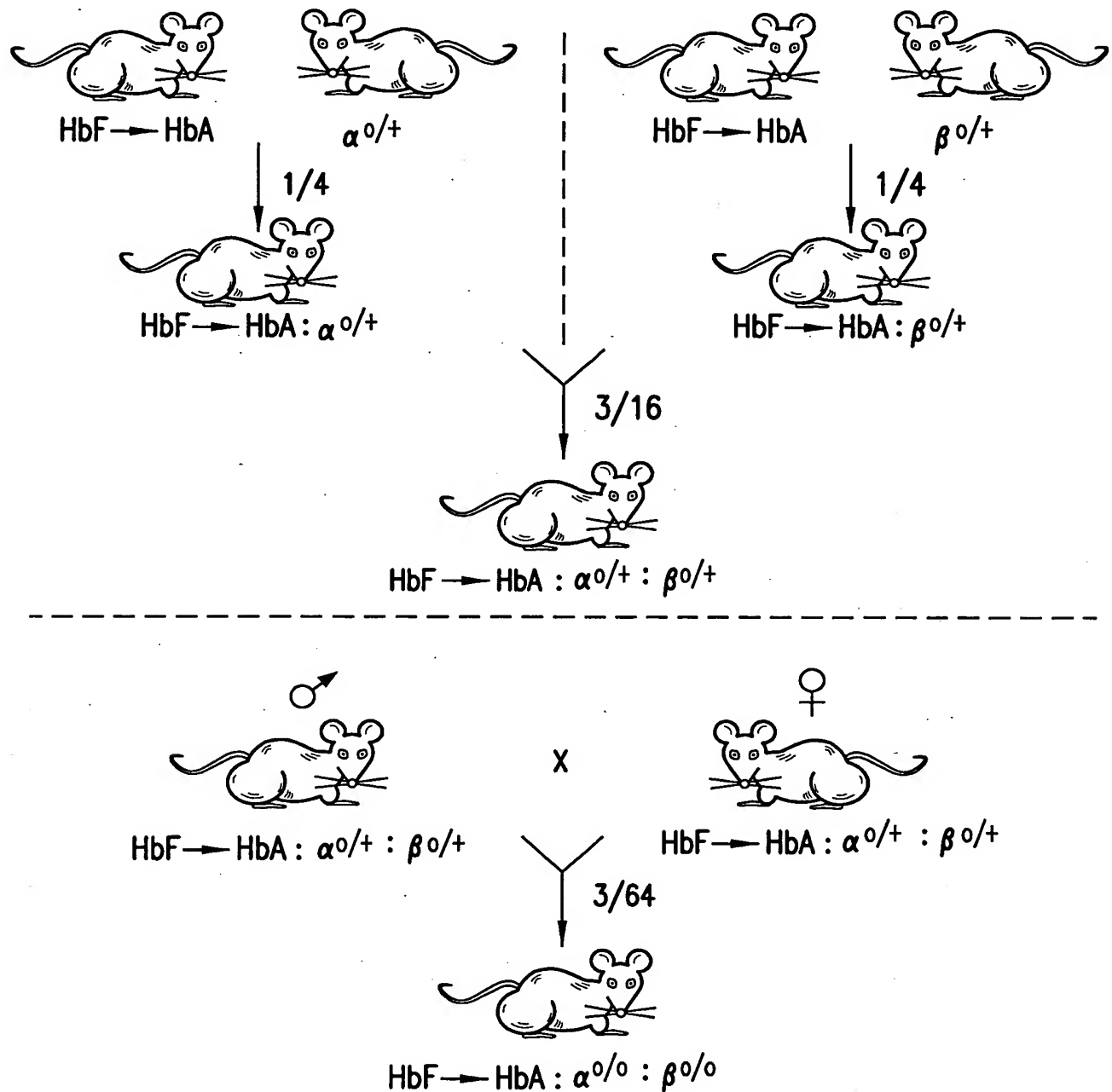
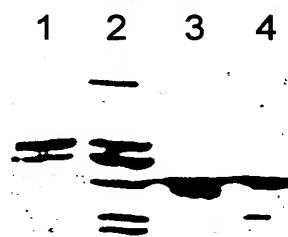


FIG.5

Isoelectric Focusing Gel Of  
Transgenic Mouse Hemolysates



1. Mouse Control
2. HbF → HbA :  $\alpha^{+/+}$  :  $\beta^{+/+}$  Mouse
3. HbF → HbA :  $\alpha^{0/0}$  :  $\beta^{0/0}$  Mouse
4. Human AA Control

FIG.6

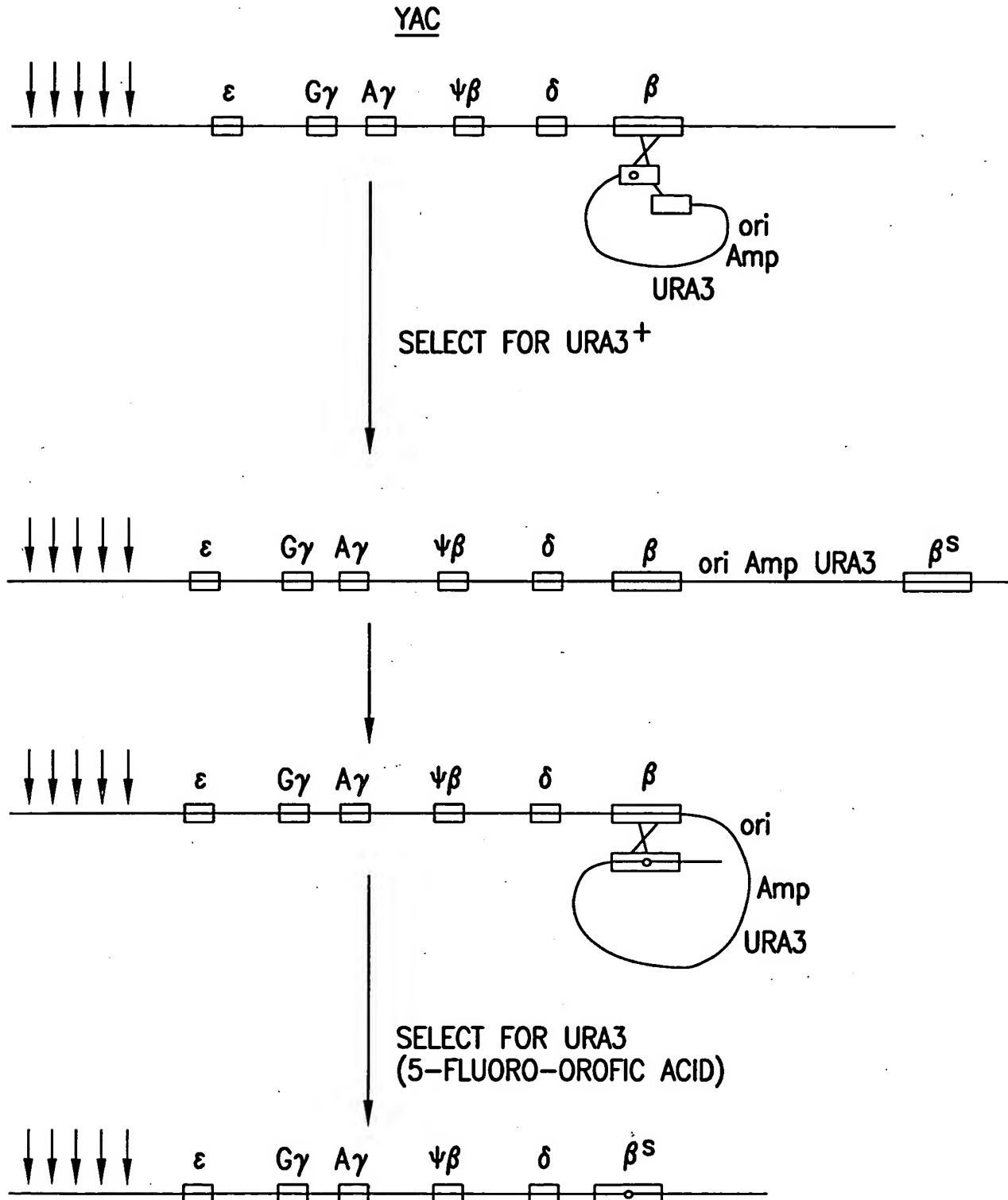


FIG.7



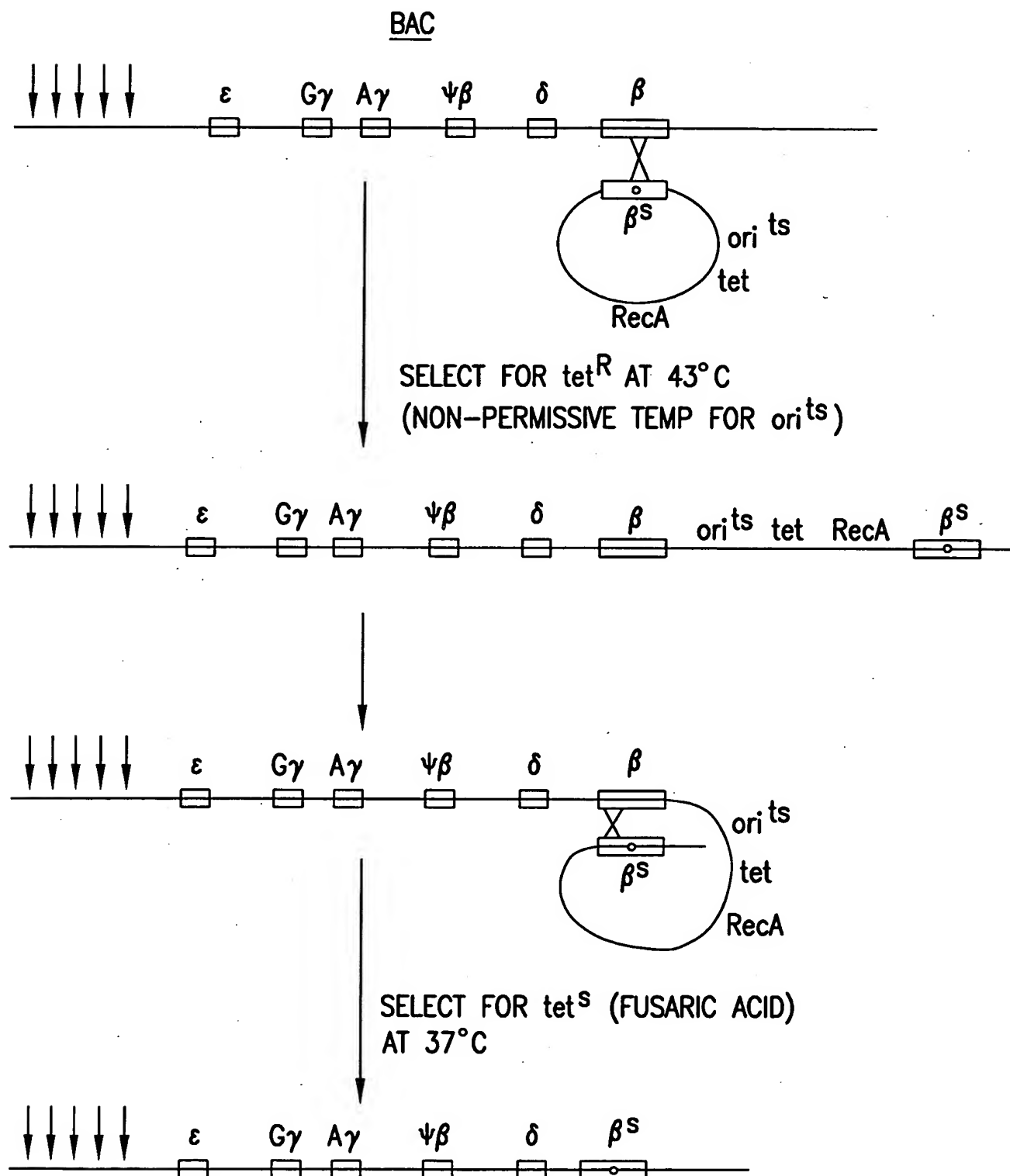
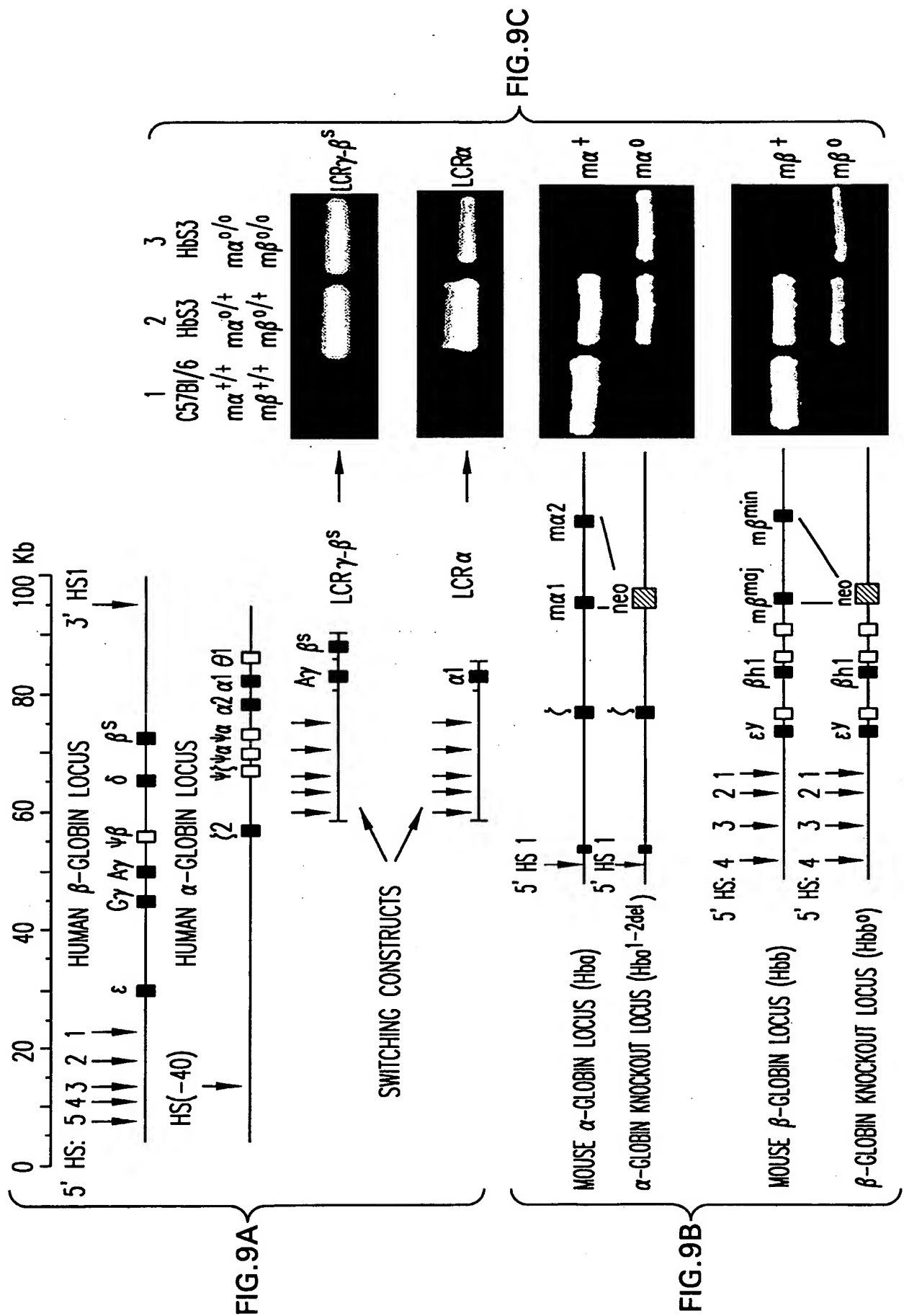


FIG.8



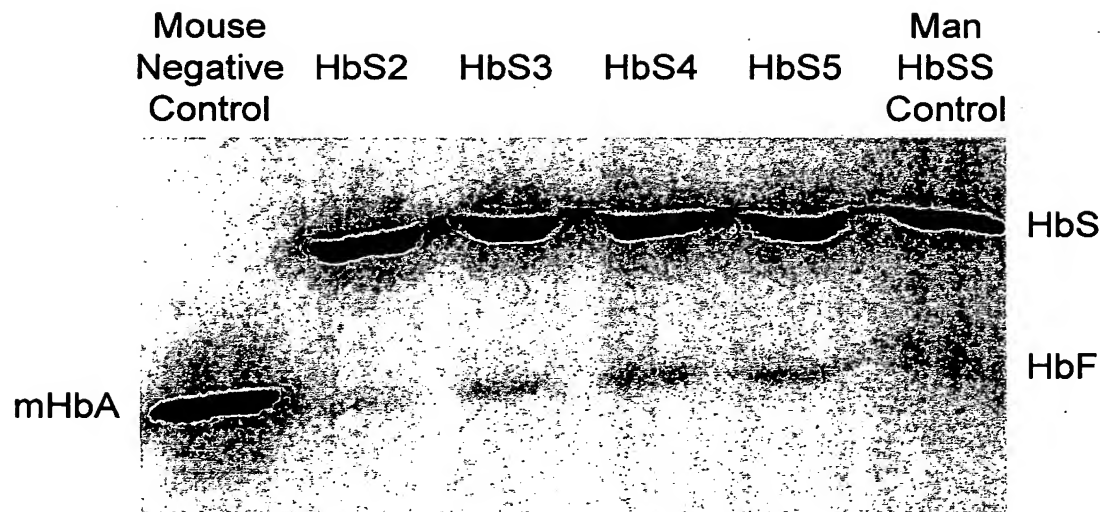


FIG.10

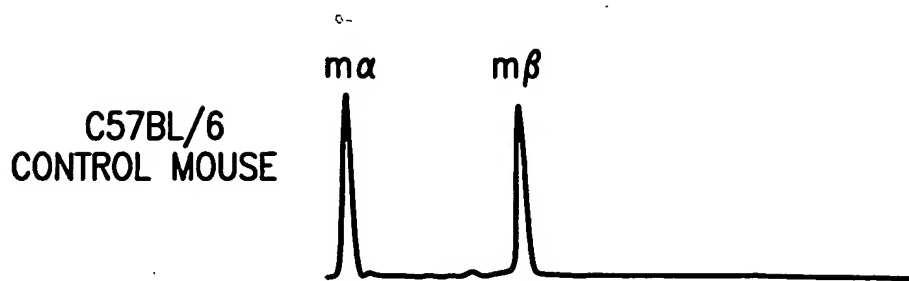


FIG. 11A

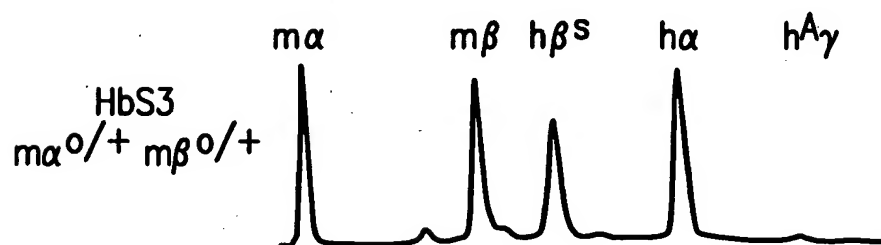


FIG. 11B

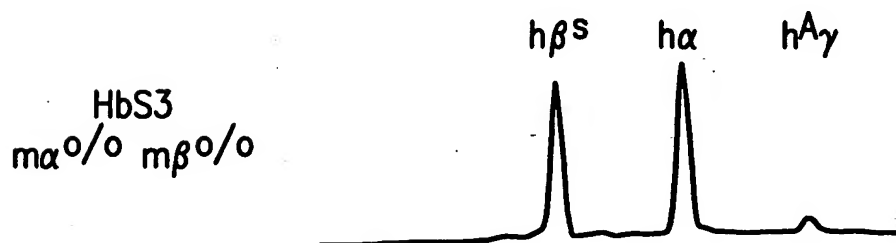


FIG. 11C

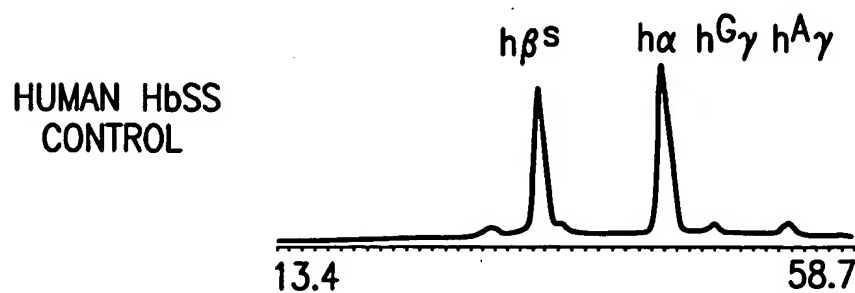


FIG. 11D

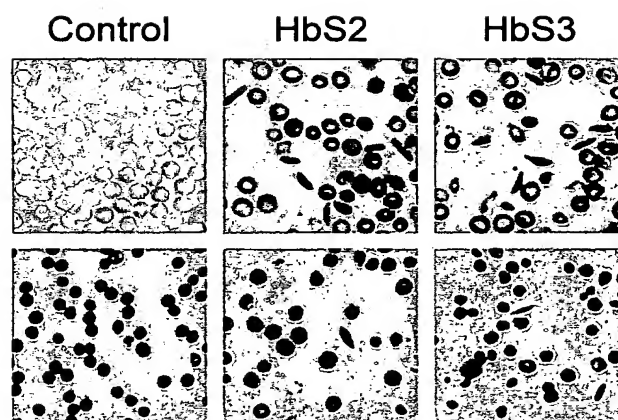


FIG.12

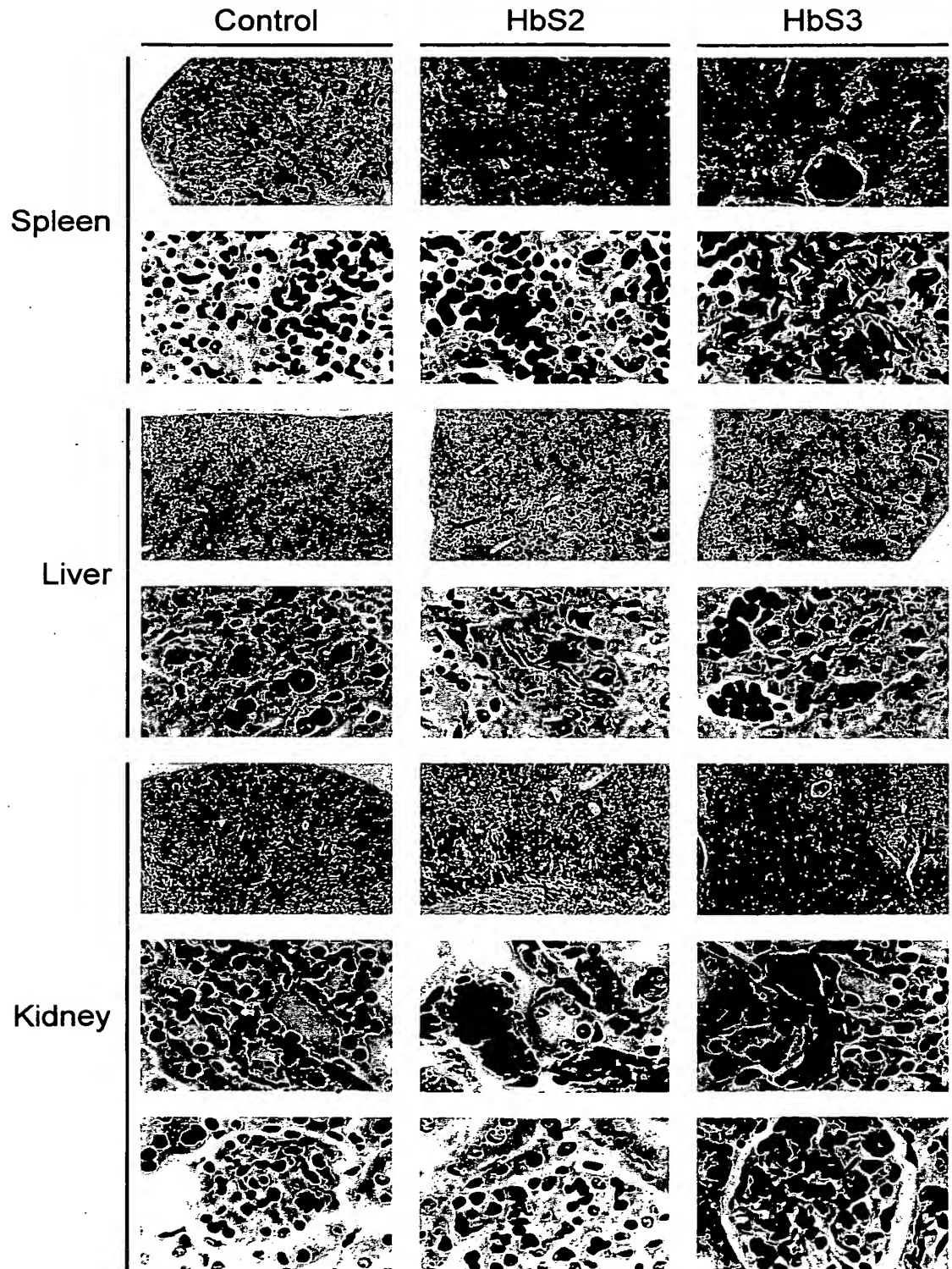


FIG.13



FIG. 14A



FIG. 14B

# HEMOGLOBIN SWITCHING IN HbA MICE

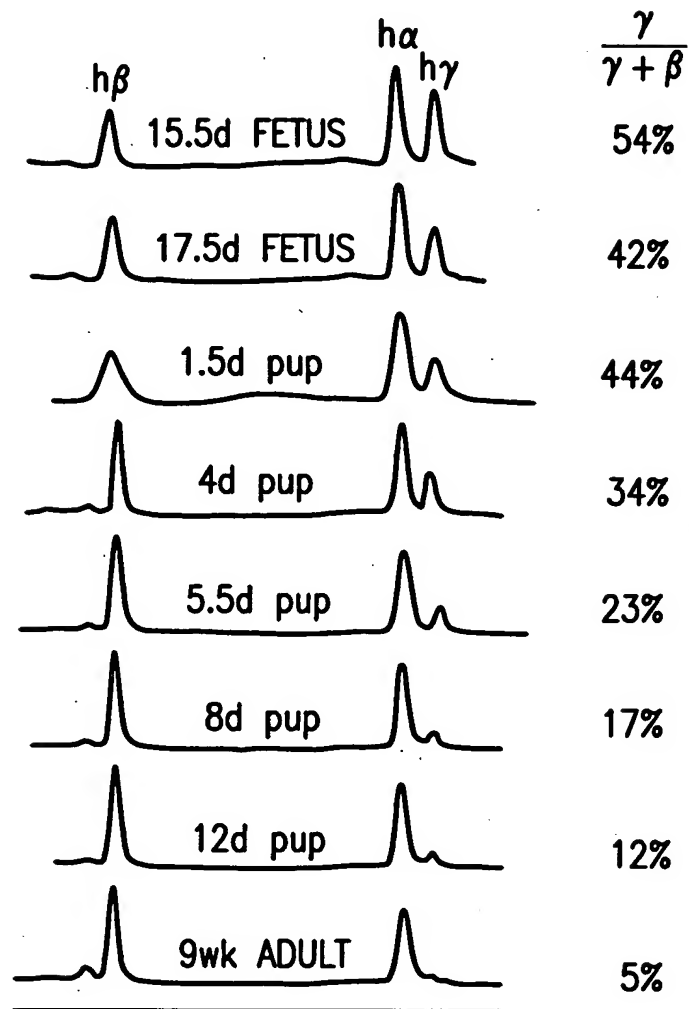


FIG. 15



INCREASING HbF LEVELS IN HbS MICE:  
 CROSSING THE HbS 3 AND HbF LINES

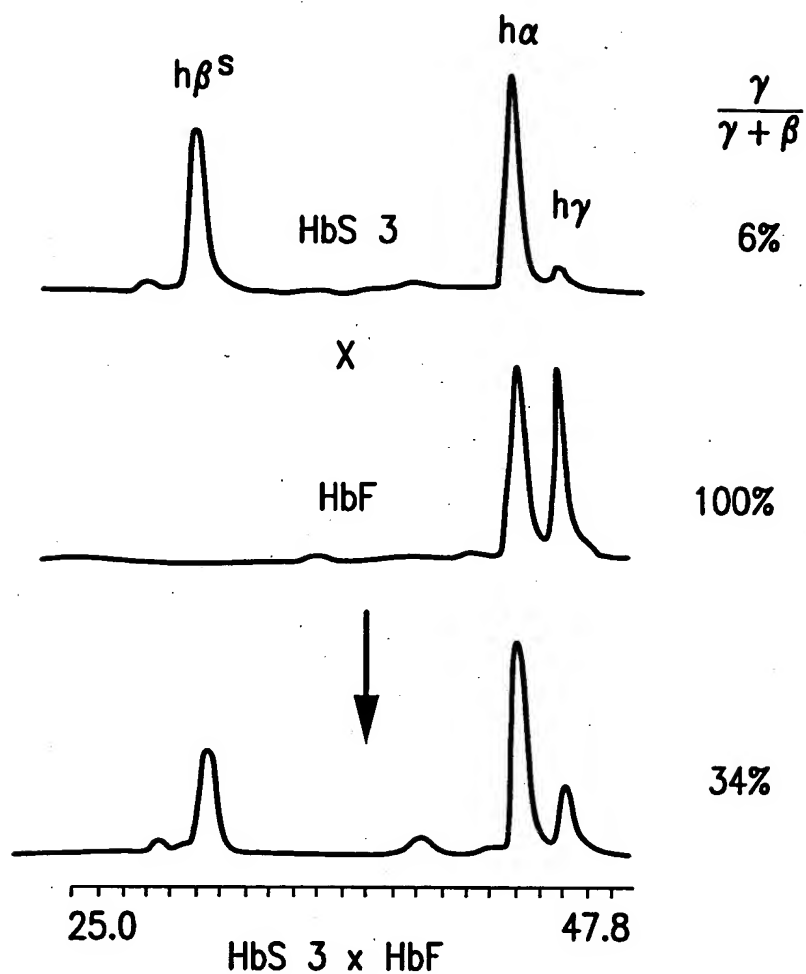


FIG. 16